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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,409	03/10/2004	Jao-Ching Lin	12451/5	4110

7590 04/16/2007

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EXAMINER	
DHARIA, PRABODH M	
ART UNIT	**PAPER NUMBER**
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,409	LIN ET AL.	
	Examiner	Art Unit	
	Prabodh M. Dharia	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. **Status:** Please all the replies and correspondence should be addressed to examiner's new art unit 2629. Receipt is acknowledged of papers submitted on 03-10-2004 under a new application, which have been placed of record in the file. Claims 1-30 are pending in this action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Shahoian, Erik J. et al. (US 20020033795 A1).

Regarding Claim 1, Shahoian et al. teaches a touch control module (page 2, paragraph 13, Line 2) comprising: a touch control unit (page 2, paragraph 13, Line 2) operable so as to generate a contact signal in response to contact with an object (page 2, paragraph 12, Lines 2-6); a computing unit coupled electrically to said touch control unit so as to receive the contact signal there from (please see figures 1,2 and 3, page 3, paragraph 41, Lines 1-3) said computing unit being configured to generate different control signals , each of which is generated in accordance

with a contact position of the object with said touch control unit (page 2, paragraph 38, page 4, paragraphs 48,53, page 3, paragraph 42, right side Lines 15-18) ; and a transmission interface including a set of transmission lines coupled electrically to said computing unit (page 3, paragraph 45), each of said transmission lines being used to transmit a respective one of the control signals; whereby, said transmission interface is adapted to provide the control signals to a host unit for scrolling control of a graphical user interface display of the host unit (page 3, paragraph 45, page 4, paragraphs 48, 53).

Regarding Claim 2, Shahoian et al. teaches touch control unit includes first and second contact regions, said computing unit generating a first one of the control signals in response to contact of the object with said first contact region, and a second one of the control signals in response to contact of the object with said second contact region (page 2, paragraphs12, 38, page 3, paragraph 42).

Regarding Claim 3, Shahoian et al. teaches touch control unit further includes third and fourth contact regions, said computing unit generating a third one of the control signals in response to contact of the object with said third contact region, and a fourth one of the control signals in response to contact of the object with said fourth contact region (page 2, paragraphs12, 38, page 3, paragraph 42, different regions with different functionality assigned and micro-processor transmits this data to host to process them).

Regarding Claim 4, Shahoian et al. teaches first, second, third and fourth contact regions are interconnected to form a closed loop (page 2, paragraph 12).

Regarding Claim 5, Shahoian et al. teaches first, second, third and fourth contact regions are interconnected to form a rectangular loop (page 2, paragraph 12).

Regarding Claim 6, Shahoian et al. teaches first and second contact regions are in the form of strips that extend along parallel first and second axes, respectively, said third and fourth contact regions being in the form of strips that extend along parallel third and fourth axes, respectively, said third and fourth axes being transverse to the first and second axes (page 2, paragraph 12, page 12, paragraph 124).

Regarding Claim 7, Shahoian et al. teaches each of said first, second, third and fourth contact regions is formed with a plurality of parallel scan lines, each of which is transverse to the axis of the respective one of said contact regions (page 12, paragraph 123 using actuator scans the contact or movement of the object along an axis).

Regarding Claim 8, Shahoian et al. teaches first and second contact regions are interconnected at one end, and said third and fourth contact regions are connected to said one end of said first and second contact regions (page 2, paragraphs12, 38, page 3, paragraph 42).

Regarding Claim 9, Shahoian et al. teaches first and second contact regions are in the form of strips that extend along a first axis, and said third and fourth contact regions are in the form of strips that extend along a second axis transverse to the first axis (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124).

Regarding Claim 10, Shahoian et al. teaches each of said first, second, third and fourth contact regions is formed with a plurality of parallel scan lines, each of which is transverse to the axis of the respective one of said contact regions (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124, page 12, paragraph 123 using actuator scans the contact or movement of the object along an axis).

Regarding Claim 11, Shahoian et al. teaches touch control unit includes a first contact region, said computing unit generating a first one of the control signals in response to movement of the object along said first contact region in a first direction, and a second one of the control signals in response to movement of the object along said first contact region in a second direction opposite to the first direction (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124, page 12, paragraph 123 using actuator scans the contact or movement of the object in a different regions along both the axis, X and Y).

Regarding Claim 12, Shahoian et al. teaches touch control unit further includes a second contact region, said computing unit generating a third one of the control signals in response to movement of the object along said second contact region in a third direction, and a fourth one of

the control signals in response to movement of the object along said second contact region in a fourth direction opposite to the third direction (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124, page 12, paragraph 123 using actuator scans the contact or movement of the object in a different regions along both the axis, X and Y).

Regarding Claim 13, Shahoian et al. teaches first contact region is connected at one end to said second contact region (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124).

Regarding Claim 14, Shahoian et al. teaches first contact region is in the form of a strip that extends along a first axis, and said second contact region is in the form of a strip that extends along a second axis transverse to the first axis. (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124, strips are arranged around borders or boundary and for rectangular boundary will have X-axis and Y-axis).

Regarding Claim 15, Shahoian et al. teaches each of said first and second contact regions is formed with a plurality of parallel scan lines, each of which is transverse to the axis of the respective one of said contact regions (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124, page 12, paragraph 123 using actuator scans the contact or movement of the object in a different regions along both the axis, X and Y).

Regarding Claim 16, Shahoian et al. teaches touch control unit further includes a third contact region, said computing unit generating a third one of the control signals in response to movement of the object along said third contact region in a first direction, and a fourth one of the control signals in response to movement of the object along said third contact region in a second direction opposite to the first direction (page 2, paragraphs12, 38, page 3, paragraph 42, page 12, paragraph 124, page 12, paragraph 123 using actuator scans the contact or movement of the object in a different regions along both the axis, X and Y).

Regarding Claim 17, Shahoian et al. teaches third contact region has opposite ends connected respectively to said first and second contact regions (page 2, paragraphs 12 and 38, page 3, paragraph 42, page 12, paragraph 124, rectangular boundary it will always two vertical strip will connect one horizontal strip).

Regarding Claim 18, Shahoian et al. teaches first and second contact regions are in the form of strips that extend along parallel first and second axes, respectively, said third contact region being in the form of a strip that extends along a third axis transverse to the first and second axes (page 2, paragraphs 12 and 38, page 3, paragraph 42, page 12, paragraph 124, rectangular boundary it will always have two vertical strip Y-axis will connect to two horizontal strip X-axis).

Regarding Claim 19, Shahoian et al. teaches each of said first, second and third contact regions is formed with a plurality of parallel scan lines, each of which is transverse to the axis of

the respective one of said contact regions (page 2, paragraphs 12 and 38, page 3, paragraph 42, page 12, paragraph 124, rectangular boundary it will always have two vertical strip Y-axis will connect to two horizontal strip X-axis, paragraph 123 using actuator scans the contact or movement of the object in a different regions along both the axis, X and Y).

Regarding Claim 20, Shahoian et al. teaches each of the control signals is a pulse signal that contains at least one pulse (page 7, paragraph 72, page 18, paragraphs 186,187).

Regarding Claim 21, Shahoian et al. teaches each of the control signals contains displacement information of the object on said touch control unit (page 7, paragraph 72, page 18, paragraphs 186,187).

Regarding Claim 22, Shahoian et al. teaches each of the control signals contains a number of pulses indicative of the displacement information (page 7, paragraph 72, page 18, paragraphs 186,187).

Regarding Claim 23, Shahoian et al. teaches the pulse signal is a square wave signal (page 7, paragraph 72, page 9, paragraph 96).

Regarding Claim 24, Shahoian et al. teaches an electronic device (page 1, paragraph 5, Lines 1,2, page 2, paragraph 37, Line 3) comprising: a host unit including an operating system and a graphical user interface (GUI) display having a scroll bar feature and operably associated

with said operating system (page 3, paragraph 45, page 4, paragraphs 48, 53); a touch control unit (page 2, paragraph 13, Line 2) operable so as to generate a contact signal in response to contact with an object (page 2, paragraph 12, Lines 2-6); a computing unit coupled electrically to said touch control unit so as to receive the contact signal there from (please see figures 1,2 and 3, page 3, paragraph 41, Lines 1-3) said computing unit being configured to generate different control signals , each of which is generated in accordance with a contact position of the object with said touch control unit (page 2, paragraph 38, page 4, paragraphs 48,53, page 3, paragraph 42, right side Lines 15-18) ; and a transmission interface including a set of transmission lines coupled electrically to said computing unit and host unit (page 3, paragraph 45, , page 4, paragraphs 48, 53), each of said transmission lines being used to transmit a respective one of the control signals to said host unit; said operating system of said host unit (page 4, paragraph 53, page 5, paragraph 61,62) being responsive to the control signal received from said transmission interface for scrolling control of said GUI display (page 3, paragraph 45, page 4, paragraphs 48, 53).

Regarding Claim 25, Shahoian et al. teaches touch control unit includes first and second contact regions, said computing unit generating a first one of the control signals in response to contact of the object with said first contact region, and a second one of the control signals in response to contact of the object with said second contact region (page 2, paragraphs12 and 38, page 3, paragraph 42).

Regarding Claim 26, Shahoian et al. teaches touch control unit includes a first contact region, said computing unit generating a first one of the control signals in response to movement of the object along said first contact region in a first direction, and a second one of the control signals in response to movement of the object along said first contact region in a second direction opposite to the first direction (page 2, paragraphs 12, 38, page 3, paragraph 42, page 12, paragraph 124, page 12, paragraph 123 using actuator scans the contact or movement of the object in a different regions along both the axis, X and Y).

Regarding Claim 27, Shahoian et al. teaches each of the control signals is a pulse signal that contains at least one pulse (page 7, paragraph 72, page 18, paragraphs 186,187, page 9, paragraph 96).

Regarding Claim 28, Shahoian et al. teaches each of the control signals contains displacement information of the object on said touch control unit (page 7, paragraph 72, page 18, paragraphs 186,187, page 9, paragraph 96).

Regarding Claim 29, Shahoian et al. teaches each of the control signals contains a number of pulses indicative of the displacement information (page 7, paragraph 72, page 18, paragraphs 186,187, page 9, paragraph 96).

Regarding Claim 30, Shahoian et al. teaches the pulse signal is a square wave (page 7, paragraph 72, page 9, paragraph 96).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zadesky et al. (US 2003/0076306 A1) Touch pad handheld device.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

7. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Prabodh Dharaia

Partial Signatory Authority Program

AU 2629

December 22, 2006